

Amendments To the Claims

FI

Claim 1 (Currently Amended): A method of manufacturing a thin film resistors ~~resistor~~
~~with a moisture barrier~~ comprising:
forming a plurality of thin film chip resistors, each of the plurality formed by:
(a) depositing a non-tantalum metal film resistive layer on a thin film resistor substrate;
(b) attaching a thin film resistor termination on each end of the metal film resistive layer; and
(c) depositing the moisture barrier comprising an outer layer of tantalum pentoxide film
directly overlaying and attaching to the metal film resistive layer to reduce failures due to
electrolytic corrosion under powered moisture conditions to form one of the plurality of
thin film chip resistors;
exposing selected thin film chip resistors to powered moisture conditions;
observing failures due to electrolytic corrosion under powered moisture conditions in the selected
thin film chip resistors.

Claim 2 (Original): The method of claim 1 wherein the step of depositing a layer of tantalum pentoxide is sputtering tantalum pentoxide film.

Claim 3 (Original): The method of claim 1 wherein the metal film layer is an alloy containing nickel.

Claim 4 (Original): The method of claim 1 wherein the metal film layer is an alloy containing chromium.

Claim 5 (Original): The method of claim 1 wherein the metal film layer is a nickel-chromium alloy.

for 8/13/03
claims 56-14 cancelled

Claim 15 (Currently Amended): A method of manufacturing a thin film chip resistors
~~resistor with a moisture barrier~~ comprising:

forming a plurality of thin film chip resistors, each of the plurality formed by:

- F1*
Cont'd
- (a) depositing a non-tantalum metal film resistive layer on a substrate;
 - (b) attaching a termination on each end of the metal film resistive layer;
 - (c) depositing a passivation layer directly overlaying and attaching to the metal film layer;
- and

(d) depositing the moisture barrier comprising an outer layer of tantalum pentoxide film
directly overlaying and attaching to the passivation layer for reducing failures due to
electrolytic corrosion under powered moisture conditions to form one of the plurality of
thin film chip resistors;

exposing selected thin film chip resistors from the plurality of thin film chip resistors to powered
moisture conditions;

observing failure due to electrolytic corrosion under powered moisture conditions in the selected
thin film chip resistors.